

REMARKS/ARGUMENTS

Claims 2-19 are pending in this application. By this Amendment, claims 2 and 19 are amended. Support for the claims can be found throughout the specification, including the original claims and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

I. Rejection Under 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 2-8 and 19 under 35 U.S.C. §112, second paragraph as allegedly indefinite. It is respectfully submitted that the amendments to claims 2 and 19 are responsive to the Examiner's comments, and that claims 2-8 and 19 meet the requirements of 35 U.S.C. §112, second paragraph. Accordingly, the rejection should be withdrawn.

II. Rejection Under 35 U.S.C. §103(a)

The Office Action rejects claims 2-19 under 35 U.S.C. §103(a) over Figures 1-3 of the present application in view of Hirobumi et al., Japanese Patent Publication No. 2001-110939 (hereinafter "Hirobumi") in view of the text *Thin Film Technology* by Berry et al. (hereinafter "Berry"). The rejection is respectfully traversed.

Independent claim 2 is directed to a plating method for a printed circuit board. The method includes using a first set of the plurality of circuit patterns provided in the substrate as a first power connection portion and a second set of the plurality of circuit patterns, separate from the first set, as a second power connection portion, and connecting one of the first or second power connection portion to an external power source. The method also includes covering a

surface of the substrate excepting the connection pads with a plating resistance resist to shield it, and selectively supplying power to the one of the first or the second power connection portion, and forming a gold-plated layer on a connection pad to which the one of the first or the second power connection portion is electrically connected. The method also includes disconnecting the one of the first or the second power connection portion from the external power source, and connecting the other of the first or second power connection portion to an external power source.

Independent claims 9 and 19 recite similar features in varying scope. Figures 1-3 of the present application, Hirobumi, and Berry, either alone or in combination, neither disclose nor suggest the features of independent claims 2, 9 and 19, or the respective claimed combination of features.

The Office Action first refers to Hirobumi alleging that Hirobumi teaches using circuit patterns in a substrate as a first power connection portion. The Office Action asserts that Berry's alleged teaching of the process of electrodeposition can be applied to teach a connection of electrodes, presumably, the circuit patterns in Hirobumi's device, to an external source of direct current during a plating process.

Hirobumi discloses a method of manufacturing a semiconductor package in which non-electrolytic copper is deposited on an entire surface of a substrate, a plating resist material is deposited on a solder surface, and a portion of the non-electrolytic copper is removed by

etching. An electrolytic nickel/gold coat is applied to an exposed surface of a copper pad, and resist material is removed.

Even if Hirobumi and Berry were combined as suggested in the Office Action, and current were to flow through a conductive layer 5 on a side of a circuit board disclosed by Hirobumi (presumably, the bottom side as shown in the drawings) opposite a bonding pad (unspecified), through a through hole 3, through a circuit pattern formed on a top side of the board, and to a bonding pad that is exposed to a plating solution through an opening in a resist material 4, Hirobumi still only discloses the connection to and supply of power at a single point of the conductive layer 5. Thus, even if the external power source allegedly taught by Berry were connected to Hirobumi's device, the resulting combination still neither discloses nor suggests first and second power connection portions, let alone first and second power connection portions operated in the specific manner recited in independent claims 2, 9 and 19.

The Office Action then asserts that Figures 1-3 of the present application teach plating onto more than a single area of a work piece, and that it would have been obvious to repeat the steps as allegedly taught by Hirobumi and modified by Berry to form an electrodeposit in another area. However, it is respectfully submitted that Figures 1-3 of the present application merely show that power is supplied to two separate portions 1a and 1b of a base material 8 through a single power supply line 5. Figures 1-3 of the present application neither disclose nor suggest a first power connection portion formed by first set of circuit patterns, and a second

power connection portion formed by a second set of circuit patterns that is separate from the first set of circuit patterns, as recited in independent claims 2, 9 and 19.

Accordingly, it is respectfully submitted that independent claims 2, 9 and 19 are allowable over the applied combination, and thus the rejection of independent claims 2, 9 and 19 under 35 U.S.C. §103(a) over Figures 1-3 of the present application, Hirobumi and Berry should be withdrawn. Dependent claims 3-8 and 10-18 are allowable at least for the reasons set forth above with respect to independent claims 2 and 9 from which they respectively depend, as well as for their added features.

III. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, **Joanna K. Mason**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

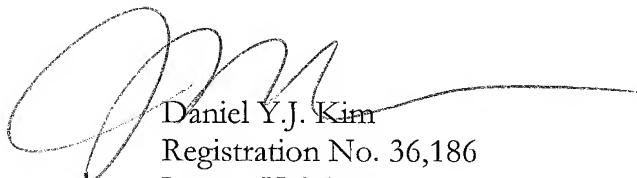
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Reply to Office Action of **January 10, 2008**

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and
please credit any excess fees to such deposit account.

Respectfully submitted,
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